Below we use the following notation:
Txbk – "Codinig theory and Cryptography" by Hankerson & others.

We may also use notations:
♢ – the proof is not obligatory,
♦ – an important topic, the proof in particular.
Th - Theorem, Pr - Proposition, Lm - Lemma.

Content of lectures 14-15.

Lecture 14.

Correcting errors for a RS-code.
Error location numbers and error madnitudes.
Equivalent RS-codes, changing m and normalized RS-codes.
The (inverse) error location polynomial $\sigma(X)$ and polynomial $\omega(X)$.
The syndrom polynomial $s_{[\bar{w}]}(X)$.
Properties of $\sigma(X)$, $\omega(X)$, $s(X) = s_{[\bar{w}]}(X)$ and the main congruence.

The plan for the error-correcting procedure based on Euclid Algorithm.
The review of Euclid Algorithm for polynomials:
sequences $\{r_i\}$, $\{q_i\}$, $\{u_i\}$ and $\{v_i\}$ and their properties.

†There is no corresponding text in Txbk, we follow more or less
Foundation of coding by Juri Adamek, ch.13.

Lecture 15.

The main steps of the error-correcting procedure with EA and
the statements to prove.
The existence of r_N such that $r_N \neq 0$ and $\deg r_N \leq t$.
The problem with $u_N(0) \neq 0$.
Formulae for the degrees of q_i and u_i.
Getting it proved that $u_N(0) \neq 0$.